

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Geismar Plant – Services and Laboratory
CHEMTURA USA CORP.**

Geismar, Ascension Parish, Louisiana

Agency Interest Number: 1433

Activity Number: PER20020015

Draft Permit 2551-V1

I. APPLICANT:

Company:

CHEMTURA USA CORP.

P.O. Box 397

Geismar, Louisiana 70734

Facility:

CHEMTURA USA CORP. - Geismar Plant, Services and Laboratory

36191 Highway 30, Geismar, Ascension Parish, Louisiana

Approximate UTM coordinates are 691.69 kilometers East and 3342.72 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS:

Chemtura USA Corporation operates an integrated chemical production facility approximately 0.9 miles from Geismar, in Ascension Parish. Ascension Parish is currently designated as “marginal” non-attainment for the 8-hour ozone national ambient air quality standard; VOC and NO_x are the regulated air pollutants for ozone. The Geismar facility is a major source subject to the Part 70 operating permit program because it has the potential to emit 100 or more tons per year of VOC and NO_x. In addition, this facility has the potential to emit 10 or more tons per year of a single TAP and 25 or more tons per year of aggregate TAPs/HAPs.

Chemtura’s facility is bordered by BASF Corporation to the south, Rubicon to the west, Westlake Chemicals to the north and Louisiana Highway 30 to the east. Nearest residences to the site are communities located in Geismar, Louisiana and on LA. Highway 73. In 2001, the company’s name was changed from Uniroyal Chemical Co., Inc. to Crompton Manufacturing Company, Inc. In 2006, the company’s name was changed to Chemtura USA Corporation. This facility produces synthetic rubber and specialty rubber chemicals used as processing aids, anti-ozonants, and accelerators in the synthetic rubber and plastics processing industry in producing such items as automobile tires, rubber hoses, foam rubber gaskets, roofing shingles, etc.

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The process units that exist on this site include: FLEXZONE®, THIAZOLES®, CELOGEN® OT-MBT, CELOGEN® AZ, maleic hydrazide/mercaptobenzothiazole (MH/MBT), para-aminodiphenylamine (UBOB), 2,6-di-tertiary-butyl-paracresol/2,2-dimethylhydrazide (BHT/B-NINE) and Naugalube® 438L. Other units, produce EPDM synthetic rubber, ROYALENE®/TRILENE® Unit. Support processes on site include a services (maintenance)/laboratory area and several wastewater treatment plants.

Timely applications for initial Part 70 Title V permits were submitted by the company and all corresponding initial Part 70 Title V permits have been granted by the permitting authority.

This Part 70 operating permit is for the Geismar Plant-Services and Laboratory. The Initial Part 70 Operating Permit, Permit No. 2551-V0 was issued for the Geismar Plant-Services and Laboratory on June 30, 1998. This facility has been in operation since 1962.

Initial/Modification Title V Part 70 permits that were issued by the department include:

Permit #	Units or Sources	Date Issued
2099-V1	THIAZOLES® Unit	11/12/2003
2305-V1	Sulfur Recovery Unit	10/16/2003
2551-V0	Services (Maintenance)/ Laboratory	06/30/1998
2327-V2	MH/MBT Unit	10/25/2003
514C-V1	CELOGEN® AZ Unit	08/28/2002
2292-V1	Wastewater Treatment Plant	12/30/2004 and amended 05/19/2005
2333-V1	Flexzone Unit	12/30/2004 and amended 04/20/2005
2572-V2	BHT/B-NINE Unit	01/14/2005
2531-V1	Royalene WWTP	02/25/2005 and amended 07/08/2005
2242-V1	CELOGEN® OT-MBT Unit	08/26/05

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Permit #	Units or Sources	Date Issued
2041-V0 (0180-00012-V0)	Royalene and Trilene Units	08/05/2005 and amended 12/22/2005
2572-V3	BHT/B-NINE Unit	11/10/2005
1186C-V0	UBOB Unit	05/18/2006
2099-V2	THIAZOLES® Unit	08/01/2006
514C-V2	CELOGEN® AZ Unit	09/29/2006

Initial/Renewal/Modification Title V Part 70 permits that are under review by the department include:

Permit #	Units or Sources	Date Issued
2551-V1	Services and Laboratory	Permit Pending

III. PROPOSED PERMIT / PROJECT INFORMATION:

Proposed Permit

A permit modification/renewal application and updated Emission Inventory Questionnaire (EIQ), were submitted by CHEMTURA on December 30, 2002, requesting renewal of the Part 70 Operating Permit. Additional information was received on March 14, 2005. The company submitted supplemental information to the permit renewal application and EIQ on September 7 and October 31, 2006.

A notice requesting public comment on the permit was published in The Advocate, Baton Rouge, Louisiana, on XXX XX, 2006; and The Gonzales Weekly, Louisiana, on XXX XX, 2006 and Published in the Office of Environmental Services Public Notice Mailing List on XXX XX, 2006. The proposed permit was also submitted to U.S. EPA Region VI for review and comment. All comments will be considered prior to the final permit decision.

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Project description

Services activities at Chemtura's Geismar Plant consist of maintenance of process equipment and facility grounds. Sources of air emissions include sandblasting, painting, exhaust from emergency generators and fire pumps, fuel storage tanks, oil storage tanks, and parts cleaning stations. The support laboratory is used for routine quality control /environmental analyses as well as research development testing. Sources of air emissions from the support laboratories are from solvents and chemical evaporation associated with conducting these experiments which are released through the laboratory ventilation hoods.

Permitted Air Emissions

This modification/renewal permit allows for the following:

- Deletion of emission points EPN 2910, 2912 and 2920 as the welding booths are included as insignificant activities.
 - Deletion of emission points EPN 2903 as the painting operation is included as an insignificant activity.
 - Deletion of emission points EPN 2950, 2951, 2952 2953 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961 2962, and 2963 as the laboratory hoods are included as insignificant activities.
 - Deletion of emission points EPN 2909, 2911, 2913, 2914, 2915, 2916, 2919, 2921 and 2922 as the solvent machines are included as insignificant activities.
 - Deletion of emission points EPN 2928, 2929, 2930, 2931 and 2932 as these five used oil tanks are included as insignificant activities.
 - Deletion of emission points EPN 2925, 2926 and 2927 as these three new oil tanks are included as insignificant activities.
 - Deletion of emission point EPN 2937 as the gasoline tank and dispenser are no longer in service.
 - Deletion of emission point EPN 2938 to avoid confusion as the emission point had been used previously for two pieces of equipment.
 - Inclusion of previously existing but not permitted emission point EPN 2939.
- Deletion of emission points EPN 2907, 2908, 2917, 2924, 2934, 2935, 2936 and 2939

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as these eight diesel storage tanks are included as insignificant activities.

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	0.69	0.68	-0.01
SO ₂	0.42	0.63	+0.21
NO _x	6.25	9.47	+3.22
CO	1.36	2.04	+0.68
VOC*	18.43	1.77	-16.66

***VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

Pollutant	Before	After	Change
Benzene ¹	0.001	0.002	+0.001
Acetaldehyde ¹	0.001	0.002	+0.001
Acrolein ¹	0.00	<0.001	+<0.001
1,3-Butadiene ¹	0.00	<0.001	+<0.001
Ethylbenzene ¹	0.755	0.00	-0.755
Ethylene Glycol ¹	0.003	0.000	-0.003
Methyl Ethyl Ketone ¹	1.393	0.000	-1.393
Methyl Isobutyl Ketone ¹	2.76	0.00	-2.76
Formaldehyde ¹	0.004	0.003	-0.001
n-Butanol	1.851	0.000	-1.851
Toluene ¹	1.610	0.001	-1.609
Xylene (mixed isomers) ¹	3.572	0.001	-3.571
Total	12.04	0.009	-11.941

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*Highly Reactive VOC (HRVOC) Speciation (TPY) :

1,3-Butadiene ¹	<0.001
Xylene (mixed isomers) ¹	0.001
Toluene ¹	0.001
Total	0.002

*Other VOC (TPY): 1.761

¹Pollutant is a HAP pursuant to Section 112 of the CAA.

Non-VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before ¹	After	Change
Methyl Chloride	0.041	0.00	-0.041
Total	0.041	0.00	-0.041

Air Modeling Analysis

For modeling analysis refer to Section VII of the draft Part 70 permit.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the draft Part 70 permit.

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IV. Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms conditions and standards are provided in the Facility Specific Requirements Section of the draft permit.

Prevention of Significant Deterioration Applicability/Nonattainment New Source Review

There is no physical change or change in the method of operations that result in a significant increase. The modifications/revisions proposed in this application do not trigger PSD/NNSR review.

Maximum Achievable Control Technology (MACT) Requirements

Services and Laboratory is part of a facility which is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. The toxic air pollutants that emit from Services and Laboratory are all Class III pollutants and MACT is not required. Impact of these pollutants on air quality is in compliance with the Louisiana Toxic Air Pollutant Ambient Air Standards.

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

The requirements of Subpart FFFF applies to any one who owns or operates a miscellaneous organic chemical manufacturing process unit (MCPU), located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA). Services and Laboratory is not a MCPU.

40 CFR 64-Compliance Assurance Monitoring (CAM) Rule

Compliance Assurance Monitoring (CAM) is applicable to the facility, however, Services and Laboratory does not have any emission unit with a potential to emit

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greater than or equal to 100% of the major source threshold, before taking controls into account (there are no control devices associated with the emission sources in Services and Laboratory).

V. Permit Shields

A permit shield was not requested.

VI. Periodic Monitoring

The Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit.

VII. Applicability and Exemptions of Selected Subject Items

See Permit.

VIII. Streamlined Requirements

None

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IX. Glossary

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

New Source Review (NSR) - A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and

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oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥10 tons per year of any toxic air pollutant; ≥25 tons of total toxic air pollutants; and ≥100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulphur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than

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those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.